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War Model Pressure Cookers

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War Model PR



Margaret Mahler with war model cooker (left) and the aluminum (right).

WHAT ABOUT these new wartime pressure cookers? Will they perform the big and important task of preserving food from the Victory gardens as satisfactorily as did the prewar models of cast aluminum?

We have been looking into those questions here at the Iowa Station and our answer, in general, is that the war model will do just as good a job—perhaps even better—than the old models.

The familiar cast-aluminum pressure cooker, which was one of the standbys when canning time came, has been another of the casualties of the war. The manufacturers met the challenge, however, by putting on the market the war model pressure cookers which are made of steel, covered with porcelain.

Because these war model canners do not look like the prewar

By MARGARET W. MAHLER

pressure cookers and because they have a different method of indicating the pressure, folks have wondered about their reliability. To determine the answer, we checked one of these pressure cookers in the Household Equipment Laboratory at Iowa State College.

How New and Old Differ

This cooker differs from the prewar model in the method by which the lid is clamped to the kettle and in the type of pressure indication. Instead of using the clamps which screw down on the lid and hold it in place, there are notched projections around the edge of the lid which interlock with similar projections on the kettle. Turning the lid a short distance is all that's needed to fit

... They Performed Satisfactorily

it in place, and a rubber gasket completes the seal.

In place of the usual pressure gauge, a set of weights is placed over the petcock. A single weight is used if 5 pounds pressure is needed, two weights for 10 pounds and three weights for 15 pounds. The desired pressure is indicated when the weight—or weights—rotate, due to the steam escaping through a series of holes at the top of the weight. We checked the temperatures obtained at each of the pressure settings and found them to be very accurate. This accuracy might well be maintained from year to year since there are no gears or levers—such as those in most pressure gauges—to get out of order.

Since steam must escape during the entire cooking process in this victory model, folks have wondered, "Would there be a possibility of liquid being drawn out of the jars?" There was also the possibility that perhaps the jar or jars directly under the petcock from which the steam was escaping would lose more liquid than the other jars.

Test With Carrots

These questions on the performance of the new canner were checked by canning carrots in quart jars. At the same time similar jars of carrots were processed in one of the prewar cast-aluminum pressure cookers. Three different types of lids were used—the metal self-sealing tops, the glass tops which are held in place with the metal bands that screw down over the glass, and the zinc, one-piece screw lids. In each case, the lids were used as directed by the manufacturer.

The loss of water from the jars

PRESSURE COOKERS

Factorily in Trial Tests . . .

of processed food was checked in two different ways—the weight of the liquid that was lost and the difference in the level of the liquid before and after processing. The first method—that of checking the weights—is probably more accurate since several factors might influence the level of the liquid besides the actual amount lost. These uncontrollable factors would include: the amount of water taken up by the carrots, the number of carrots in the jar, and the temperature of the liquid and carrots when the jars were packed.



Lids Make More Difference

The results show that there is very little difference in the performance of the two canners. There is more variation between the different types of lids. In every case there was less liquid lost from the jars which had been processed in the war model canner than from those jars processed in the aluminum pressure cooker.

The difference in the amount of liquid that was lost shows up more definitely when the weights of liquid are compared than when the difference in the level of the liquid within the jar is considered. The position of the jar within the cooker seemed to have no effect

The right jar in each of the above pairs of canned carrots was processed in the war model canner and the left one in the prewar aluminum pressure cooker. Less liquid was lost in all cases with the war model.

upon the quantity of liquid that was lost. The accompanying table summarizes the results of the checks on canning. The figures in the table are those obtained by averaging the results of three runs.

In actual operation, the war model pressure cooker had one definite advantage over the prewar model. There was no chance that all of the air might not be exhausted from the kettle before the petcock was closed. In the prewar models, the air had to be carefully exhausted in order to be

sure that the temperatures indicated by the pressure gauge were accurate. This exhausting is done by following the directions that come with the cooker which say to allow a steady stream of steam to escape for 5 to 7 minutes before closing the petcock. In the war model pressure cooker, steam escapes during the entire processing period. Consequently the air would always be exhausted and you can be sure that the food is being processed at the desired temperature.

These results indicate that foods can be canned just as successfully with the war models of pressure cookers as with the prewar models. Consequently, there should be no loss of those Victory garden products because of a lack of prewar pressure cookers. If the directions which the manufacturer sends with each cooker are followed carefully, it is possible to have those thrifty and patriotic shelves full of vegetables from your garden, regardless of the model of your pressure cooker.

AMOUNT OF LIQUID LOST WITH WAR MODEL AND PREWAR MODEL PRESSURE COOKERS FROM JARS WITH DIFFERENT TYPE LIDS.

	Depth of water lost		Weight of water lost	
	War model	Prewar model	War model	Prewar model
	inches	inches	grams	grams
Metal self-sealing lids	9/16	5/8	2.6*	64.6*
Glass tops—metal bands	5/8	13/16	32.3	55.1
Zinc tops	1 1/8	1 1/4	76.2	85.0

*Average of only one run.